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James C. Wray
Suite 300
1493 Chain Bridge Road
McLean, VA 22101

EXAMINER	
UNDERWOOD, JARREAS C	
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2877	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/765,115	SAHA, PAMELA	
	Examiner	Art Unit	
	Jarreas C. Underwood	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,15,16,18-23,25-27,31-42 and 45* is/are rejected.

7)☒ Claim(s) *13,14,17,24,28-30,43 and 44* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 January 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/21/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 4/21/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

The drawings are objected to because of the following informalities:

2. As to Figure 6, the numeral "15" indicates both the object and two of the sheets. Examiner assumes that all sheets in the drawing are element 13, while only the center object is element 15.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

3. As to claim 5, a property of a photoelastic material is that of double refraction, or birefringence. In order to be capable of birefringence, the material must be able to transmit light, e.g. be transparent or translucent. Opaque objects therefore cannot be photoelastic.

While examiner assumes that the applicant intends to place a photoelastic film or paint on an opaque object, the wording of claim 5 contraindicates that of claim 1. Claim 5 is therefore given no patentable weight and rejected for the same reasons as claim 1.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claim 26, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5, 9, 26, 38-39, 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Peiperl (United States Patent 3,927,461).

5. As to claim 1, Peiperl teaches a photoelastic entertainment device comprising deformable photoelastic material molded into shapes (Figure 1, element 10) and one or more light polarizing films (Figure 1, elements 13, 14) for viewing fringe patterns within the photoelastic materials caused by stress.

6. As to claim 2, Peiperl discloses everything claimed, as applied above in claim 1, in addition the shapes are geometric shapes, flexible sheets, prisms, lenses, wedges, cubes, pyramids, amorphous forms, animal or dinosaur shapes (Figure 5).

7. As to claim 5, Peiperl discloses everything claimed, as applied above in claim 1, in addition the photoelastic material is opaque. Examiner directs applicant to the claim objection above.

8. As to claim 9, Peiperl discloses everything claimed, as applied above in claim 1, in addition the photoelastic material is a single color (column 1, lines 10-13). Examiner

holds that as Peiperl mentions color only in the context of birefringence, the material itself is monochromatic.

9. As to claim 26, Peiperl discloses everything claimed, as applied above in claim 1, in addition additional optical effects are used, such as reflection, refraction, diffraction and interference patterns of light (Figure 1, element 11).

10. As to claim 38, Peiperl discloses everything claimed, as applied above in claim 1, in addition an opaque object (Figure 1, element 11) or a mirrored surface below (Figure 1, relative positions of elements 10 and 11), a characteristic of or embedded within the transparent or translucent photoelastic material (Figure 1, element 10).

11. As to claim 39, Peiperl discloses everything claimed, as applied above in claim 38, in addition the polarizing films (Figure 1, elements 13, 14) are applied on a surface of the photoelastic material or mounted separately from the photoelastic material (Figure 1, placement of elements 10, 13 and 14).

12. As to claim 42, Peiperl discloses everything claimed, as applied above in claim 1, in addition fixed, permanent fringes are fixed within the photoelastic object through curing techniques and permanent deformation strategies (Figures 2, 3, 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-4, 6-8, 15, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl in view of Lane et al (United States Patent 3,315,391).

13. As to claims 3 and 4, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the photoelastic material is transparent or translucent, respectively. However to do so is well known as taught by Lane. Lane teaches the photoelastic material is transparent or translucent (column 1, lines 31-36). It would have been obvious to one of ordinary skill in the art at the time of invention to have the photoelastic material be transparent or translucent, in order to create maximum variation in the image produced.

Examiner's position is that while Lane fails to explicitly mention photoelastic materials or birefringence, the method described is such. Examiner refers applicant to column 1, line 65 to column 2, line 16.

14. As to claim 6, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of different regions of the photoelastic material are transparent, translucent and opaque or any combination thereof. However to do so is well known as taught by Lane. Lane teaches different regions of the photoelastic material are transparent, translucent and opaque or any combination thereof (Figure 1, element 12, and column 1, lines 31-36). It would have been obvious to one of ordinary skill in the art at the time of invention to have different regions of the photoelastic material are transparent, translucent and opaque or any combination thereof, in order to increase the variation in birefringence colors.

15. As to claim 7, Peiperl discloses everything claimed, as applied above in claim 1, in addition Peiperl teaches the chemical composition of the photoelastic material is variable as long as the material is photoelastic (column 2, lines 1-12).

16. As to claim 8, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the modulus of elasticity is variable. However to do so is well known as taught by Lane. Lane teaches the modulus of elasticity is variable (column 2, lines 50-52). It would have been obvious to one of ordinary skill in the art at the time of invention to have the modulus of elasticity is variable, in order to create different internal stress lines.

Examiner's position is that while Lane fails to explicitly mention modulus of elasticity, Lane teaches using different materials that inherently have different modulus of elasticity.

17. As to claim 15, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the shape is a prism, lens or wedge for creating various optical effects. However to do so is well known as taught by Lane. Lane teaches the shape is a prism, lens or wedge for creating various optical effects (Figure 3, elements 12). It would have been obvious to one of ordinary skill in the art at the time of invention to have the shape be a prism, lens or wedge for creating various optical effects, in order to cheaply create illusory movement.

18. As to claim 40, Peiperl discloses everything claimed, as applied above in claim 39, with the exception of multiple polarizing films are rotated with respect to one another to control transmission of light. However to do so is well known as taught by Lane.

Lane teaches the multiple polarizing films are rotated with respect to one another to control transmission of light (Figure 1, elements 6 and 8). It would have been obvious to one of ordinary skill in the art at the time of invention to have the multiple polarizing films be rotated with respect to one another to control transmission of light, in order to change the birefringence patterns and create the illusion of motion.

Claims 10, 16, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl in view of Burchell (United States Patent 2,473,857).

19. As to claim 10, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the photoelastic material is different colors in different regions. However to do so is well known as taught by Burchell. Burchell teaches the photoelastic material is different colors in different regions (Figure 1, element 12). It would have been obvious to one of ordinary skill in the art at the time of invention to have the photoelastic material is different colors in different regions, in order to increase the variation in birefringence colors.

20. As to claim 16, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the one or more polarizing films are attached on one or more outer surfaces on the photoelastic material. However to do so is well known as taught by Burchell. Burchell teaches the one or more polarizing films are attached on one or more outer surfaces on the photoelastic material (column 4, lines 30-36). It would have been obvious to one of ordinary skill in the art at the time of invention to have the one or more polarizing films are attached on one or more outer surfaces on the photoelastic material,

in order to reduce the number of required components and thereby save money on materials and assembly time.

21. As to claim 20, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the one or more polarizing films are disposed on individual stands for flexibility in viewing. However to do so is well known as taught by Burchell. Burchell teaches the one or more polarizing films are disposed on individual stands for flexibility in viewing (Figure 1, column 3, lines 65-72). It would have been obvious to one of ordinary skill in the art at the time of invention to have the one or more polarizing films be disposed on individual stands for flexibility in viewing, in order to allow the films to rotate separately.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl (United States Patent 3,927,461) in view of web page reference #1 (hereafter referred to as WR#1).

22. As to claim 11, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of one or more magnets embedded in the photoelastic material. However to do so is well known as taught by http://web.archive.org/web/20000116051648/http://www.liveandlearn.com/daycare/magneticletters.html. The web page reference teaches one or more magnets embedded in the photoelastic material (magnet embedded within an upside-down letter "Y"). It would have been obvious to one of ordinary skill in the art at the time of invention to have one or more magnets embedded in the photoelastic material, in order to remove the need for a complex holding or fastening system.

23. As to claim 12, Peiperl in view of WR#1 discloses everything claimed, as applied above in claim 11, in addition the magnets create stress in the photoelastic material and cause individual shapes to attract or repel one another. Examiner holds it is an inherent property of embedding one object into another to create stress. Examiner further holds that it is an inherent property of magnets to attract or repel one another.

Claims 18-19, 27, 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl (United States Patent 3,927,461) in view of Cotterman (United States Statutory Invention Registration H76).

24. As to claim 18, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the one or more polarizing films are separated and supported by posts disposed between the films. However to do so is well known as taught by Cotterman. Cotterman teaches the one or more polarizing films (Figure 1, elements 20, 28) are separated and supported by posts (Figure 1, elements 14a-14d) disposed between the films. It would have been obvious to one of ordinary skill in the art at the time of invention to have the one or more polarizing films are separated and supported by posts disposed between the films, in order to easily maintain a precise distance between the films.

25. As to claim 19, Peiperl in view of Cotterman discloses everything claimed, as applied above in claim 18, in addition Peiperl teaches a distance separates the films such that a user can manipulate the photoelastic material between the films (Figure 1, elements 11, 12).

26. As to claim 27, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the stress patterns are affected by manual manipulation of the photoelastic material. However to do so is well known as taught by Cotterman. Cotterman teaches the stress patterns are affected by manual manipulation of the photoelastic material (Figure 3, element 48 and column 5, lines 42-46). It would have been obvious to one of ordinary skill in the art at the time of invention to have stress patterns be affected by manual manipulation of the photoelastic material, in order to allow interactive study of the material.

27. As to claim 34, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of a sharp object is used to create stress patterns by contacting the photoelastic material. However to do so is well known as taught by Cotterman. Cotterman teaches a sharp object is used to create stress patterns by contacting the photoelastic material (Figure 3, element 41). It would have been obvious to one of ordinary skill in the art at the time of invention to have a sharp object be used to create stress patterns by contacting the photoelastic material, in order to create location-specific birefringence patterns.

Examiner refers applicant to Cotterman column 5, lines 4-7, wherein element 41 is used to "cause a concentrated load to be applied". Examiner finds this to be not different from the claim language of "a sharp object is used to create stress patterns".

28. As to claim 35, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of a separate lens is used to view stress patterns. However to do so is well known as taught by Cotterman. Cotterman teaches a separate lens is used to

view stress patterns (Figure 1, element 26, and column 4, lines 44-48). It would have been obvious to one of ordinary skill in the art at the time of invention to have a separate lens be used to view stress patterns, in order to change the appearance of the birefringence patterns.

Claims 21, 22, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl in view of Hester, III et al (United States Patent 5,327,180).

29. As to claim 21, Peiperl discloses everything claimed, as applied above in claim 1, in addition Peiperl teaches a polarized light source (Figure 1, combined elements 14 and 16) for passing light through the photoelastic material (Figure 1, element 10).

Peiperl fails to teach a pair of polarized glasses. However to do so is well known as taught by Hester. Hester teaches a photoelastic material (Figure 1, element 16) and a pair of polarized glasses (Figure 1, element 18). It would have been obvious to one of ordinary skill in the art at the time of invention to have a pair of polarized glasses, in order to remove allow viewing of the photoelastic object from any direction, not just from where a fixed screen might be placed.

30. As to claim 22, Peiperl discloses everything claimed, as applied above in claim 1, in addition Peiperl teaches an unpolarized light source (Figure 1, element 16) for passing light through a polarizing film (Figure 1, element 14), through a photoelastic object (Figure 1, element 10).

Peiperl fails to teach a pair of polarized glasses. However to do so is well known as taught by Hester. Hester teaches a pair of polarized glasses (Figure 1, element 18). It would have been obvious to one of ordinary skill in the art at the time of invention to

have a pair of polarized glasses, in order to remove allow viewing of the photoelastic object from any direction, not just from where a fixed screen might be placed.

31. As to claim 45, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of transparent or translucent protective coatings are applied over outer surfaces of the photoelastic material. However to do so is well known as taught by Hester. Hester teaches transparent or translucent protective coatings are applied over outer surfaces of the photoelastic material (Figure 1, element 22). It would have been obvious to one of ordinary skill in the art at the time of invention to have a transparent or translucent protective coatings be applied over outer surfaces of the photoelastic material, in order to lengthen the working lifetime of the material.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl in view of Carranza (United States Patent 2,423,371).

32. As to claim 23, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the one or more polarized films are polaroid films rotated with respect to one another for increasing or decreasing the amount of light passing through the photoelastic object. However to do so is well known as taught by Carranza. Carranza teaches the one or more polarized films are polaroid films rotated with respect to one another for increasing or decreasing the amount of light passing through the photoelastic object (column 1, lines 6-9, and column 2, lines 24-26). It would have been obvious to one of ordinary skill in the art at the time of invention to have the one or more polarized films be polaroid films rotated with respect to one another for increasing or

decreasing the amount of light passing through the photoelastic object, in order to take advantage of the low cost and durability of Polaroid film.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl in view of Blazey et al (United States Patent 5,466,564).

33. As to claim 25, Peiperl discloses everything claimed, as applied above in claim 1, in addition examiner holds it is an inherent property of thin air interfaces to create interference patterns of light. Examiner refers applicant to Blazey, Figure 2 and column 2, lines 21-36.

Claims 31, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl in view of Frocht (United States Patent 3,927,461).

34. As to claim 31, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of the stress patterns are affected by one or more clamps attached to the photoelastic material. However to do so is well known as taught by Frocht. Frocht teaches the stress patterns are affected by one or more clamps attached to the photoelastic material (Figure 2). It would have been obvious to one of ordinary skill in the art at the time of invention to have the stress patterns be affected by one or more clamps attached to the photoelastic material, in order to maintain a constant stress pattern for study.

35. As to claim 32, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of combinations of manual manipulation, springs, strings, elastic bands, clamps and force-applying devices are used to affect stress patterns. However to do so is well known as taught by Frocht. Frocht teaches combinations of manual

manipulation, springs, strings, elastic bands, clamps and force-applying devices are used to affect stress patterns (Figure 2). It would have been obvious to one of ordinary skill in the art at the time of invention to have the stress patterns be affected by one or more clamps attached to the photoelastic material, in order to provide a variety of stress patterns for study.

Claims 36, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl in view of Zandman (United States Patent 3,187,623).

36. As to claim 36, Peiperl discloses everything claimed, as applied above in claim 1, with the exception of an applied photoelastic coating. However to do so is well known as taught by Zandman. Zandman teaches an applied photoelastic coating (column 1, lines 39-47). It would have been obvious to one of ordinary skill in the art at the time of invention to have an applied photoelastic coating, in order to produce a birefringence effect on a wide variety of objects.

37. As to claim 37, Peiperl discloses everything claimed, as applied above in claim 36, with the exception of the applied photoelastic coating is a liquid paint coating or a flexible sheet coating. However to do so is well known as taught by Zandman. Zandman teaches the applied photoelastic coating is a liquid paint coating or a flexible sheet coating (column 1, lines 44-47). It would have been obvious to one of ordinary skill in the art at the time of invention to have the applied photoelastic coating be a liquid paint coating or a flexible sheet coating, in order to allow application to highly distorted surfaces.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peiperl (United States Patent 3,927,461, hereafter referred to as Peiperl '461) in view of Peiperl (United States Patent 5,172,270, hereafter referred to as Peiperl '270).

38. As to claim 41, Peiperl '461 discloses everything claimed, as applied above in claim 1, with the exception of a mirrored surface, wherein the photoelastic material is manipulated between the mirrored surface and a polarized film. However to do so is well known as taught by Peiperl '270. Peiperl '270 teaches a mirrored surface (Figure 1, element 12), wherein the photoelastic material (Figure 1, elements 13) is manipulated between the mirrored surface and a polarized film (Figure 1, element 16). It would have been obvious to one of ordinary skill in the art at the time of invention to include a mirrored surface, wherein the photoelastic material is manipulated between the mirrored surface and a polarized film, in order to produce multiple reflections of the photoelastic material and increase the viewing area.

Allowable Subject Matter

Claims 13-14, 17, 24, 28-30, 43-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

39. As to claim 13, the prior art of record, taken alone or in combination, fails to disclose or render obvious the magnets vary in placement, number per object, size,

magnetic strength, shape and chemical makeup, in combination with the rest of the limitations of the claim.

40. As to claim 14, the prior art of record, taken alone or in combination, fails to disclose or render obvious the magnets have a glossy finish, in combination with the rest of the limitations of the claim.

41. As to claim 17, the prior art of record, taken alone or in combination, fails to disclose or render obvious the one or more polarized films are embedded within the photoelastic material, in combination with the rest of the limitations of the claim.

42. As to claim 24, the prior art of record, taken alone or in combination, fails to disclose or render obvious bubbles or colloidal particles are molded into the photoelastic material for producing optical effects, in combination with the rest of the limitations of the claim.

43. As to claim 28, the prior art of record, taken alone or in combination, fails to disclose or render obvious stress patterns are affected by one or more springs attached to the photoelastic material, in combination with the rest of the limitations of the claim.

44. As to claim 29, the prior art of record, taken alone or in combination, fails to disclose or render obvious stress patterns are affected by one or more strings attached to the photoelastic material, in combination with the rest of the limitations of the claim.

45. As to claim 30, the prior art of record, taken alone or in combination, fails to disclose or render obvious stress patterns are affected by one or more elastic bands attached to the photoelastic material, in combination with the rest of the limitations of the claim.

46. As to claim 43, the prior art of record, taken alone or in combination, fails to disclose or render obvious the photoelastic material is formed into a rope, in combination with the rest of the limitations of the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jarreas C. Underwood whose telephone number is (575) 272-1536. The examiner can normally be reached on Monday-Friday 0530-1400.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on (571) 272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jarreas Underwood

Gregory J Toatley, Jr.
Supervisory Patent Examiner

Patent Examiner
Art Unit 2877
7/12/2007

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